

REMARKS

Applicant has carefully considered the Office Action dated February 14, 2005. The amendments to the specification and claims above and these remarks are presented in a bona fide effort to address all issues raised in that Action. The specification is amended to address informalities noted in the Action; and the original claims are replaced with new claims 9-36 to address various rejections. For reasons discussed below, it is believed that this case is in condition for allowance, and prompt favorable reconsideration is solicited.

I. Formal Matters

With regard to informalities of the specification, Applicant has made the changes on page 21 suggested by the Examiner.

The Office Action rejected all of the original claims as indefinite. The original claims have been cancelled, rendering this rejection moot. Care has been taken in drafting the replacement claims to avoid the issues of indefiniteness alleged in the rejection. For example, each of the independent claims includes a transitional phrase containing the word "comprising." Also, it is believed that non-sequiturs have been avoided. It is respectfully submitted that the new claims are all reasonably definite, therefore the indefiniteness rejection should be withdrawn.

II. Patentable Subject Matter

The Office Action rejected original claims 5-8 under 35 U.S.C. § 101 as directed to non-statutory "descriptive material" (programs per se). Claim 5 was directed to a network management system, and claim 6 was directed to a management protocol processing method. Claim 7 specified that it was for use in a computer readable storage medium, whereas claim 8 specified that it was for use in a program for executing the processing of a management protocol.

The original claims have been cancelled, and the newly presented claims have been crafted to clearly recite subject matter that falls into one or another of the classes defined in 35 U.S.C. § 101.

Claims 9-18 are apparatus type claims directed to a “proxy” that includes specified “unit” type elements. Claims 19-27 are method claims specifying process steps. Clearly, claims 9-27 are not directed to programs per se and should not be subject to the 101 rejection. It is respectfully submitted that these claims specify patentable apparatus and method subject matter.

New claims 28-36 are directed to products (articles of manufacture). As recited in independent claim 28, each of these products comprises a computer readable storage medium and executable programming embodied on the medium. Execution of the programming causes a programmable device to perform network management between different networks connected via Network Address Translator (NAT), comprising a number of recited steps. Applicants’ detailed description clearly teaches that management protocol functions may be realized in the form of one or more programs, which may be recorded in various media, such as a magnetic disk, an optical disc or a magneto-optical disc, from which the programming can be read out by a computer. Attention is directed to lines 15-26 of application page 13. It is respectfully submitted that the format of new claims 28-36 does in fact relate those claims to patentable product type subject matter, in a manner that is even approved of in the relevant section of the Manual of Patent Examining Procedure (*see Manual of Patent Examining Procedure*, Rev-2, May 2004, § 2106 IV (B) 1, page 2100-12, left column).

For the reasons outlined above, the rejection under 35 U.S.C. § 101 should not apply to any of the new claims (9-36) and should be withdrawn.

III. Summary of Art Rejections

The Office Action (p. 4 and p. 7) included rejections of original claims 1, 2, 4 and 5 under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,535,511 to Rao in view of U.S. Patent No. 6,581,108 to Denison et al. (hereinafter Denison). Claim 3 was rejected under 35 U.S.C. §103 as unpatentable over Rao and Denison further in combination with U.S. Patent No. 6,493,765 to Cunningham et al. (hereinafter Cunningham). The Office Action also rejected claims 6-8 under 35 U.S.C. §103 as unpatentable over Denison alone.

These rejections are respectfully traversed, particularly to the extent if any that they might be considered with regard to new claims 9-36.

IV. Patentability of New Claims Over Art

Before considering the claims, it may be helpful to briefly summarize the subject matter of this case. As disclosed in this application, a management protocol proxy receives a packet according to a management protocol from an apparatus to be monitored. Applicant's proxy translates a transmission source address contained in the packet into an address for management which is not defined by NAT (Network Address Translation), for example into a virtual address. See e.g. paragraph beginning on line 28 of page 12 and description of NAT function such as that running from line 16 of page 15 to line 8 of page 16. Since a monitored apparatus is managed with a virtual address in the disclosed technique, it is not necessary to assign a global address to the monitored apparatus to which a local address has been assigned. This makes it possible to utilize global address resources efficiently. In the system of Fig. 1, for example, in a case where each of the management protocol proxy servers 60a and 60b has a global IP address, further nodes located ahead therefrom can be managed without any other global addresses.

Each of the new claims recites one or more aspects of disclosed proxy operations/elements not suggested by the patents applied in the art rejections. For example, independent apparatus (proxy) claim 9 recites an address translation processing unit. The method of independent claim 19 includes a step of translating a transmission source address, and the programming recited in independent product claim 28 causes a device to implement a step of translating a transmission source address. In each of the independent claims, the source address is an address contained in a packet of management protocol transmitted from a monitored apparatus on a network connected by the management protocol proxy. In each claim, the translation step or function translates that address into a management address, which belongs to an address system different from an address system defined by the NAT. It is respectfully submitted that the Rao, Denison and Cunningham patents applied in the obviousness (103) rejections do not suggest such a translation into an address system different from an address system defined by the NAT; therefore the combinations/modifications proposed in the art rejections do not meet all of the requirements of any of Applicant's claims.

Fig. 1 of the Rao patent shows address translation between "PRIVATE IP ADDRESS SPACE" 12 and "PUBLIC IP ADDRESS SPACE" 14. Similarly, the Denison patent discloses a method for monitoring a host connectable by NAT, that is, the host to which both a private address and a global address are assigned. In either the Rao system or the Denison system, address translation cannot be performed to a host having only PRIVATE IP ADDRESS, although address translation to a host having both PRIVATE IP ADDRESS and PUBLIC IP ADDRESS can be performed. Namely, the Rao system and the Denison system cannot monitor a local host which has only an address of PRIVATE IP ADDRESS SPACE, with network management protocol.

By contrast, with the disclosed proxy system, it is possible to manage even a host which has only an address of PRIVATE IP ADDRESS SPACE by means of assignment of a virtual address. A modified version of Denison (rejection of original claims 6-8) or a version Rao modified with teachings of Denison (rejections of original claims 1, 2, 4 and 5) would not satisfy the claim requirement for translating the source address into a management address of an address system different from the address system defined by the NAT.

Cunningham et al. teaches DNS resolution in the NAT environment, specifically, a dynamic NAT for assigning an address to a node to which a global address has not been assigned. However, Cunningham et al. also fails to disclose or suggest Applicant's assignment of an address in an address system different from the address system defined by the NAT. In the NAT environment, the number of global addresses are finite, and by nature smaller than the number of local nodes. Thus, it is impossible in Cunningham et al. to assign global addresses to all of the local nodes simultaneously. In contrast, it is possible with the disclosed proxy technology, for example, to manage all of the local nodes by assigning virtual addresses thereto. It is respectfully submitted that the proposed combination of Rao, Denison and Cunningham (rejection or original claim 3) still would not meet the requirements recited in the independent claims regarding translation to an address in an address system different from the address system defined by the NAT.

Since none of the combinations or modifications proposed in the art rejections would actually satisfy the new claims, none of the combinations or modifications render any of the pending claims obvious in the sense of 35 U.S.C. § 103. New claims 9-36 therefore should be patentable over the art.

V. Conclusions

For the reasons discussed in detail above, informalities and indefiniteness have been corrected, all of the pending claims specify patentable subject matter, and all of the pending claims are unobvious over the applied art. Hence, the specification and claims should be in condition for allowance, and Applicant respectfully requests a prompt favorable reconsideration of this amended application.

It is believed that this response addresses all issues raised in the February 14, 2005 Office Action. However, if any further issue should arise that may be addressed in an interview or by an Examiner's amendment, it is requested that the Examiner telephone Applicants' representative at the number shown below.

To the extent necessary, if any, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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